

U.S. Serial Number: 10/678,693
Reply to Office Action of: July 12, 2006
Family Number: P2002J099 (JJK-0329)

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REMARKS

Claim 15 is amended to include a lower limit of 7270 wppm of sulfur for the feedstock. Support for the amendment can be found, for example, in Example 4 at paragraph 0046.

Claims 38 and 39 are added. Support for claims 38 and 39 can be found, for example, in the claims as originally filed. Claims 15 and 20 are amended for consistency with claims 38 and 39.

Claim 20 is amended to remove references to a first and second reactor.

Claims 20 and 25 are amended to correct typographical errors and to improve the clarity of the claims.

Claims 1 – 4 and 8 – 11 are canceled.

The above amendments introduce no new matter.

The claims pending for review are 15 – 18, 20 – 23, 25, 38, and 39.

I. Rejections under 35 U.S.C. §103

Baker in view of Kresge and either Benazzi or Carroll – Claims 15 – 18

The rejection of claims 15 – 18 under 35 U.S.C. §103(a) over US Patent 5,951,848 (Baker) in view of US Patent 5,837,639 (Kresge) and further in view of either US Patent 6,884,339 (Benazzi) or US Patent 6,517,704 (Carroll) is respectfully traversed.

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Claim 15 as amended requires for dewaxing a raffinate feedstock containing at least 7270 wppm of sulfur without prior hydrotreatment of the feedstock. The cited references do not describe or suggest such a process.

Baker describes a process that includes a hydrotreatment process followed by a catalytic dewaxing without any disengagement. (Col. 8, line 63 – Col. 9, line 12) The only description Baker provides of performing dewaxing without prior hydrotreatment is in comparative tests described in Examples 1, 2, and 7. In these comparative tests, the maximum sulfur content the dewaxing catalyst was exposed to was 2300 wppm. This is dramatically lower than the at least 7270 wppm of sulfur required by claim 15 as amended. Baker gives no indication that feedstocks with sulfur contents of at least 7270 wppm can be dewaxed without prior hydrotreatment.

Neither Benazzi nor Carroll nor Kresge contains any teaching or suggestion that high sulfur content feeds can be dewaxed without prior hydrotreatment. Thus, the cited references, either alone or in combination, do not describe or suggest claim 15 as amended. For at least this reason, reconsideration and withdrawal of the rejection of claims 15 – 18 is requested.

Xiao in view of Kresge and either Benazzi or Carroll – Claims 15 – 18

The rejection of claims 20 – 23 and 25 under 35 U.S.C. §103(a) over US Patent 6,264,826 (Xiao) in view of US Patent 5,837,639 (Kresge) and further in view of either US Patent 6,884,339 (Benazzi) or US Patent 6,517,704 (Carroll) is respectfully traversed.

Claim 20 provides an integrated process for catalytic dewaxing of a raffinate feed. In particular, claim 20 requires hydrotreating of a foots oil and passing at least a portion of the hydrotreated foots oil and gaseous sulfur- and nitrogen-containing

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contaminants from the hydrotreatment, without disengagement, to a hydrodewaxing zone that consists essentially of a ZSM-48 dewaxing catalyst.

Xiao describes a process for producing lubricating oil base stock. In particular, Xiao describes using a mild hydrotreating process that leaves higher sulfur contents present in the feedstock. Xiao states that this can be achieved because of the dewaxing catalyst and hydrogenation catalyst used. (Col. 2, line 53 – Col. 3, line 11) Although Xiao provides an extensive list of potential dewaxing catalysts, ZSM-48 is not indicated as a suitable dewaxing catalyst. Neither Benazzi, Kresge, nor Carroll describes ZSM-48. Therefore, the rejection as stated in the Office Action fails to describe or suggest all elements of claim 20. Claims 20 – 23 and 25 are allowable for at least this reason.

Applicants note that in the rejection of claims 8 – 11, the Office Action asserted that either Lucien or Cody describes that ZSM-5 and ZSM-48 can be utilized for dewaxing. Although not in the Office Action, the Examiner may have intended to argue that based on Lucien and Cody, one of skill in the art would be motivated substitute the dewaxing catalysts provided in Xiao with ZSM-48. Applicants respectfully disagree. Xiao is specifically directed to using a mild hydrotreating process, and then using a follow-up dewaxing catalyst and hydrofinishing catalyst that complement the mild hydrotreatment. Thus, the ZSM catalysts described in Xiao are not being provided for a typical catalytic dewaxing role. Instead, the ZSM catalysts described in Xiao have been selected for compatibility with the particular mild hydrotreatment process described in Xiao. Neither Lucien nor Cody contemplates the special hydrotreatment process described in Xiao. In order to substitute ZSM-48 for the catalysts described in Xiao, one of skill in the art would need to ignore the explicit teaching in Xiao of the specific nature of the selected dewaxing and hydrotreating catalysts. As a result, substituting ZSM-48 for the dewaxing catalysts described in Xiao is, at best, a situation where something is

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"obvious to try". This is not a proper rationale for a prima facie case of obviousness. As a result, claims 20 – 23 and 25 would also be allowable in view of a rejection that included either Lucien or Cody.

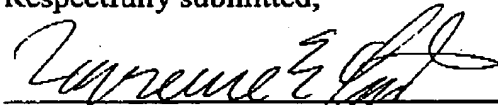
II. Conclusion

Having demonstrated that all rejections of claims have been overcome, this application is in condition for allowance. Accordingly, applicants request early and favorable reconsideration in the form of a Notice of Allowance.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated, since this should expedite the prosecution of the application for all concerned.

If necessary to affect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to affect a timely response. Please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1330.

Respectfully submitted,



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☒ Pursuant to 37 CFR 1.34(a)

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